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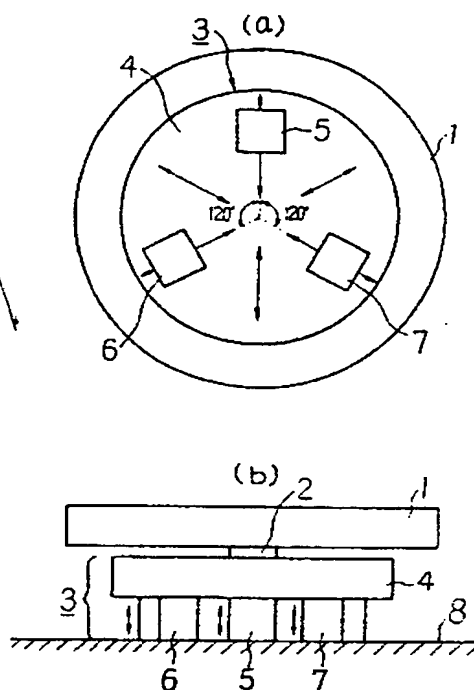
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TITLE : VIBRATING TYPE TWO-DIMENSIONAL
DRIVING DEVICE

[COPY]



ABSTRACT : PURPOSE: To miniaturize and to make lightweight the title device at low cost by providing first and second rotors and making them vibration drive by a reverse phase.

CONSTITUTION: A vibrating type two-dimensional driving unit has a disc-like moving table 1, and a driving source 3 as the piezo-electric elements (vibrator) assembling substance is assembled fixedly thereunder through a columnar center bearing member 2. The first vibrator 4 among the piezo-electric elements consisting of the driving source 3 makes a shape of disc, and its resonant attitude is a longitudinal vibration vibrating lengthwise under the surface parallel with the plane 8. The other second vibrations 5~7 vibrate in the vertical direction with the plane 8, and its vibration attitude is constituted so as to be vertical direction vibration and longitudinal vibration (perpendicular vibration). Accordingly, the moving table 1 can be moved by making vibration drive of the vibrator 5 by same phase for the vibrator 4 producing the longitudinal vibration and making vibration drive of the vibrators 6~7 by reverse phase on the other hand.

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